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### AMENDMENTS

This listing of claims replaces all prior versions and listings of claims in the application.

- 1           1.       (Currently amended)     A method for filtering a receive signal in a  
2       wireless receiver, comprising:  
3           providing a received signal to an amplifier; and  
4           filtering the received signal using a circuit comprising a single frequency  
5       dependent negative resistance configured to realize a bi-quad filter electrically isolated  
6       from an input of the amplifier such that noise contributed by the filter circuit is blocked  
7       from an output of the amplifier at a first frequency, wherein filtering at the first  
8       frequency is performed ~~by applying~~ via a single voltage-to-current conversion and a  
9       single current-to-voltage conversion.
  
- 1           2.       (Currently amended)     The method of claim 1, wherein noise  
2       contributed by the filter circuit is passed to the output of the amplifier only at a  
3       frequency other than the first frequency.
  
- 1           3.       (Currently amended)     The method of claim 1, wherein the filter  
2       circuit comprises a frequency dependent negative resistance implemented using a  
3       general impedance converter.
  
- 1           4.       (Original)       The method of claim 3, wherein noise generated by the  
2       general impedance converter is blocked from the output of the amplifier at the first  
3       frequency.

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1           5.     (Original)     The method of claim 4, wherein the first frequency is the  
2     in-band receive frequency.

1           6.     (Currently amended)     A low-noise filter for a wireless receiver,  
2     comprising:  
3             an amplifier; and  
4             a ~~filter~~ circuit comprising a single frequency dependent negative resistance  
5     implemented using a general impedance converter to realize a bi-quad filter electrically  
6     isolated from the amplifier input, the circuit configured such that noise generated by the  
7     circuit is prevented from appearing on a received signal at a first frequency, wherein the  
8     amplifier and the frequency dependent negative resistance perform a voltage-to-current  
9     conversion and a current-to-voltage conversion, respectively at a first frequency.

1           7.     (Previously presented)     The low-noise filter of claim 6, wherein the  
2     general impedance converter further comprises:  
3             a pair of operational amplifiers arranged such that a non-inverting input of a first  
4     amplifier is coupled to an inverting input of a second operational amplifier; and  
5             at least one capacitance configured to prevent noise generated by the pair of  
6     operational amplifiers from appearing at an output of the amplifier at the first frequency.

1           8.     (Original)     The low-noise filter of claim 7, wherein the first  
2     frequency is the in-band receive frequency.

1           9.     (Original)     The low-noise filter of claim 8, wherein noise generated  
2     by the pair of operational amplifiers appears at the output of the amplifier at a second  
3     frequency.

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1           10. (Original) The low-noise filter of claim 9, wherein the second  
2 frequency is an out-of-band receive frequency.

1           11. (Currently amended) A portable transceiver, comprising:  
2 a modulator configured to receive and modulate a data signal;  
3 an upconverter configured to receive the modulated data signal and provide a  
4 radio frequency (RF) signal;  
5 a transmitter configured to transmit the RF signal; and  
6 a direct conversion receiver including an amplifier and a filter, the filter  
7 comprising a single frequency dependent negative resistance implemented using a  
8 general impedance converter to realize a bi-quad filter electrically isolated from the  
9 amplifier input and configured such that noise generated by the filter is prevented from  
10 appearing on a received signal at a first frequency, wherein the amplifier and the  
11 frequency dependent negative resistance perform a single voltage-to-current conversion  
12 and a single current-to-voltage conversion.

1           12. (Previously presented) The portable transceiver of claim 11, wherein  
2 the general impedance converter further comprises:  
3 a pair of operational amplifiers arranged such that a non-inverting input of a first  
4 amplifier is coupled to an inverting input of a second operational amplifier; and  
5 at least one capacitance configured to prevent noise generated by the pair of  
6 operational amplifiers from appearing at an output of the amplifier stage at a first  
7 frequency.

1           13. (Original) The portable transceiver of claim 12, wherein the first  
2 frequency is the in-band receive frequency.

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1           14.   (Original)    The portable transceiver of claim 13, wherein noise  
2           generated by the pair of operational amplifiers appears at the output of the amplifier  
3           stage at a second frequency.

1           15.   (Original)    The portable transceiver of claim 14, wherein the second  
2           frequency is an out-of-band receive frequency.

1           16.   (Currently amended)    A portable transceiver, comprising:  
2           means for modulating a data signal;  
3           means for upconverting the modulated data signal and provide a radio frequency  
4           (RF) signal;  
5           means for transmitting the RF signal;  
6           means for converting a received signal to a baseband signal; and  
7           means for filtering the baseband signal so that noise generated by the filter  
8           means is prevented from appearing on the received signal at a first frequency, the means  
9           for filtering comprising a single frequency dependent negative resistance configured to  
10          realize a bi-quad filter electrically isolated from an input of the amplifier, wherein the  
11          means for filtering performs a single voltage-to-current conversion and a single current-  
12          to-voltage conversion.

1           17.   (Original)    The portable transceiver of claim 16, wherein the first  
2           frequency is the in-band receive frequency.

1           18.   (Previously presented)    The portable transceiver of claim 17, wherein  
2           noise generated by the filter means appears on the received signal at a second frequency.

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1           19.    (Original)    The portable transceiver of claim 18, wherein the second  
2           frequency is the out-of-band receive frequency.

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